

REMARKS

This amendment is submitted in response to the Official Action mailed September 7, 2005. In view of the above claim amendments and the following remarks, reconsideration by the Examiner and allowance of the application is respectfully requested.

Claims 1, 6 and 8 have been amended to more particularly point out and distinctly claim the subject matter that Applicants regard as the invention. In particular, Claim 1 has been amended to add the limitation of Claim 5, which is now canceled. This does not introduce new matter. Claims 6 and 8 have been amended to depend from Claim 1 instead of from canceled Claim 5. This also does not introduce new matter. Claim 6 has also been amended to change "R₁" to refer to the "R₂" depicted in the claimed structure. This also does not introduce new matter.

Claim 1 is now directed to a copolymer of diphenol monomers with pendant carboxylic acid groups or the benzyl carboxylates thereof and diphenol monomers with carboxylate pendant esters that are not benzyl esters or other ester groups that are removed by hydrogenation. The benzyl carboxylate copolymers are precursors of the carboxylic acid copolymers. As explained at page 4 of the present specification, the ability to control the degree of copolymerization permits control over the rate of polymer degradation.

In view of the above claim amendments, the within application is believed to be in condition for allowance. Reconsideration of the rejections made by the Examiner is therefore respectfully requested. In the event that any issues remain outstanding, the Examiner is asked to call the undersigned at the telephone number indicated below.

Turning to the Official Action, Claims 1 – 8 were rejected under 35 U.S.C. §102(b) as being anticipated by Kohn et al., U.S. Patent No. 5,670,602. Kohn et al. was cited as disclosing diphenol polymers with pendant carboxylic acid groups or the benzyl esters thereof. Pendant carboxylic acid groups were cited as being disclosed at column 5, lines 1 – 5 and column 5, lines 60– 65. Benzyl esters were cited as being disclosed at column 4, lines 5–

15 and column 5, lines 1 – 5 and 60 – 67. This rejection is respectfully traversed in view of the above claim amendments for the reasons set forth hereinafter.

The only disclosure of the term “carboxylic acid” with reference to the diphenol monomers in the Kohn et al. patent at column 4 or 5 is at column 4, line 64 and column 5, line 1. Both instances refer to the hydroxyphenyl carboxylic acids that are reacted with tyrosine esters to form diphenol monomers with pendant carboxylate esters. There is no disclosure of diphenol monomers with pendant carboxylic acid groups. The Kohn et al. patent therefore does not anticipate the polymers of Claims 1 – 8 with pendant carboxylic acid groups.

The polymers are also not obvious because there is no teaching or suggestion in the Kohn et al. patent regarding how a hydrolytically unstable diphenol polymer with a pendant free carboxylic acid group may be prepared. This can only be learned by reading the present specification.

As for benzyl esters, the Kohn et al. patent discloses benzyl groups among suitable polymer ester groups. However, there is no disclosure of copolymers of diphenol monomers with pendant benzyl carboxylate groups and diphenol monomers with carboxylate pendant esters that are not benzyl esters or other ester groups that are removed by hydrogenation. When a compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be found if the classes of substituents are sufficiently limited or well defined (see M.P.E.P. §2131.02). In the present situation the selection of a copolymer with the specific selection of the benzyl ester as one co-monomer with the other co-monomer having a pendant ester group that is not a benzyl ester or otherwise removed by hydrogenation is not sufficiently described by the Kohn et al. patent for the patent to anticipate the copolymers of Claims 1 – 8.

There is also no teaching or suggestion in the Kohn et al. patent to motivate one of ordinary skill in the art to select the benzyl ester monomer for purposes of forming a free pendant carboxylic acid group by hydrogenation of the resulting polymer, or to select a comonomer having a pendant ester group that is not a benzyl ester or otherwise removed by hydrogenation in order to attain a predetermined level of pendant carboxylic acid groups in the resulting copolymer. This can also only be learned by reading the present specification, so that the benzyl ester copolymers are also not obvious in view of the Kohn et al. patent.

Accordingly, by amending Claim 1 so it is now directed to copolymers of diphenol monomers with pendant carboxylic acid groups or the benzyl carboxylates thereof and diphenol monomers with carboxylate pendant esters that are not benzyl esters or other ester groups that are removed by hydrogenation, this rejection of Claims 1 – 8 as being anticipated by the Kohn et al. patent under 35 U.S.C. §102(b) has thus been overcome. Reconsideration by the Examiner and withdrawal of this rejection is therefore respectfully requested.

Next, Claims 1 and 9 – 14 were rejected under 35 U.S.C. §102(e) by the Kohn et al. Published International Application No. WO 97/19996. This publication was essentially cited as disclosing poly(alkylene oxide) block copolymers of the polymers of the previously-cited Kohn et al. patent. Pendant carboxylic acid groups or the benzyl esters thereof were cited as being disclosed at page 7, lines 5 and 6. This rejection is respectfully traversed in view of the above claim amendments for the reasons set forth hereinafter.

The cited publication discloses block copolymers of polyarylates and poly(alkylene oxides). The polyarylates are formed by polymerizing tyrosine-derived diphenols and dicarboxylic acids. The page 7 disclosure referred to by the Examiner relates to the dicarboxylic acid, not the diphenol. The cited publication at best discloses dipenols with pendant alkylaryl esters. Free carboxylic acids are not disclosed. The only ester groups specifically disclosed are ethyl, butyl, hexyl and octyl.

Only the present invention describes block copolymers of polyarylates (and other diphenol-derived polymers) and poly(alkylene oxides) in which the polyarylate (or other polymer) is a polymer of a diphenol with a pendant carboxylic acid group. This is not described by the Kohn et al. publication. The Kohn et al. also does not describe block copolymers of polyarylates and poly(alkylene oxides) in which the polyarylate is prepared from two diphenol monomers, one with pendant benzyl carboxylate groups and one with carboxylate pendant esters that are not benzyl esters or other ester groups that are removed by hydrogenation. The block copolymers with diphenol monomers having pendant carboxylic acid groups and the benzyl ester thereof of Claims 1 and 9 – 14 are therefore not anticipated by the Kohn et al. publication for the reasons given above with respect to the Kohn et al. patent.

There is likewise also no teaching or suggestion in the Kohn et al. publication to motivate one of ordinary skill in the art to select the benzyl ester diphenol monomer for purposes of forming a free pendant carboxylic acid group by hydrogenation of the resulting polymer, or to select a diphenol co-monomer having a pendant ester group that is not a benzyl ester or otherwise removed by hydrogenation in order to attain a predetermined level of pendant carboxylic acid groups in the resulting copolymer. This can also only be learned by reading the present specification, so that the claimed benzyl ester copolymers are also not obvious in view of the Kohn et al. publication.

Accordingly, by amending Claim 1 so that claims 9 – 14 are now directed to block copolymers of diphenol polymers with poly(alkylene oxides) in which the diphenol polymer blocks are copolymers of diphenol monomers with pendant carboxylic acid groups or the benzyl carboxylates thereof and diphenol monomers with carboxylate pendant esters that are not benzyl esters or other ester groups that are removed by hydrogenation, this rejection of Claims 1 and 9 – 14 as being anticipated by the Kohn et al. publication under 35 U.S.C. §102(e) has thus been overcome. Reconsideration by the Examiner and withdrawal of this rejection is therefore respectfully requested.

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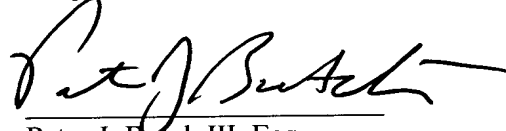
§102(e) has thus been overcome. Reconsideration by the Examiner and withdrawal of this rejection is therefore respectfully requested.

Accordingly, in view of the above claim amendments and the foregoing remarks, this application is now in condition for allowance. Reconsideration is respectfully requested. The Examiner is reminded to telephone the undersigned if there are any remaining issues in this application to be resolved.

Finally, if there are any additional charges in connection with this response, the Examiner is authorized to charge Applicant's deposit account number 19-5425 therefor.

1-19-06
Date

Respectfully submitted,


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